

IN THE CLAIMS

Please amend the claims as follows:

Claim 63. (currently amended) A method of purifying specific DNA or RNA comprising:

placing a purified DNA or RNA sample in a first reservoir tube under conditions to denature double stranded DNA or render RNA suitable for binding;

inserting a wand into said first reservoir tube, wherein said wand comprises a cap, a sample collection assembly and an elongated shaft connecting said cap to said sample collection assembly, said sample collection assembly having microstructures for increasing the surface area of the sample collection assembly, and said microstructures of said sample collection assembly are coated with a coating comprising sequence specific oligonucleotide probe, peptide nucleic acid probe through a linker arm, or biotin-streptavidin bond to capture specific target DNA or RNA;

securely and sealingly closing said first reservoir tube with said cap of said wand with said shaft and said sample collection assembly inside said first reservoir tube, and incubating said DNA or said RNA of the sample in the sample collection assembly under conditions whereby stable, specific hybridization structures are formed, thereby binding said specific DNA or said specific RNA to said coating on said microstructures of said sample collection assembly;

removing said wand from said first reservoir tube and inserting said wand into a second reservoir tube, said second reservoir tube containing a wash buffer;

securely and sealingly closing said second reservoir tube with said cap of said wand with said shaft and said sample collection assembly inside said second reservoir tube;

agitating said second reservoir tube to mix said sample with said wash buffer under conditions to retain only said DNA or said RNA on said microstructures;

removing said wand from said second reservoir tube and inserting said wand into a third reservoir tube, said third reservoir tube containing an ~~alkaline~~ elution buffer to effect release of said DNA or said RNA;

incubating said third reservoir tube;

removing said sample collection assembly from said third reservoir tube;
~~adding neutralization buffer to said third reservoir tube to stabilize said DNA or~~
~~said RNA; and~~
recovering said specific DNA or RNA from said third reservoir tube.

Claim 65. (currently amended) The method of claim 63, wherein said conditions for denaturing DNA or rendering RNA suitable for binding comprise: heating said reservoir tube to ~~95°C~~^{80°C} for a sufficient time to denature said double stranded DNA or render said RNA suitable for binding.